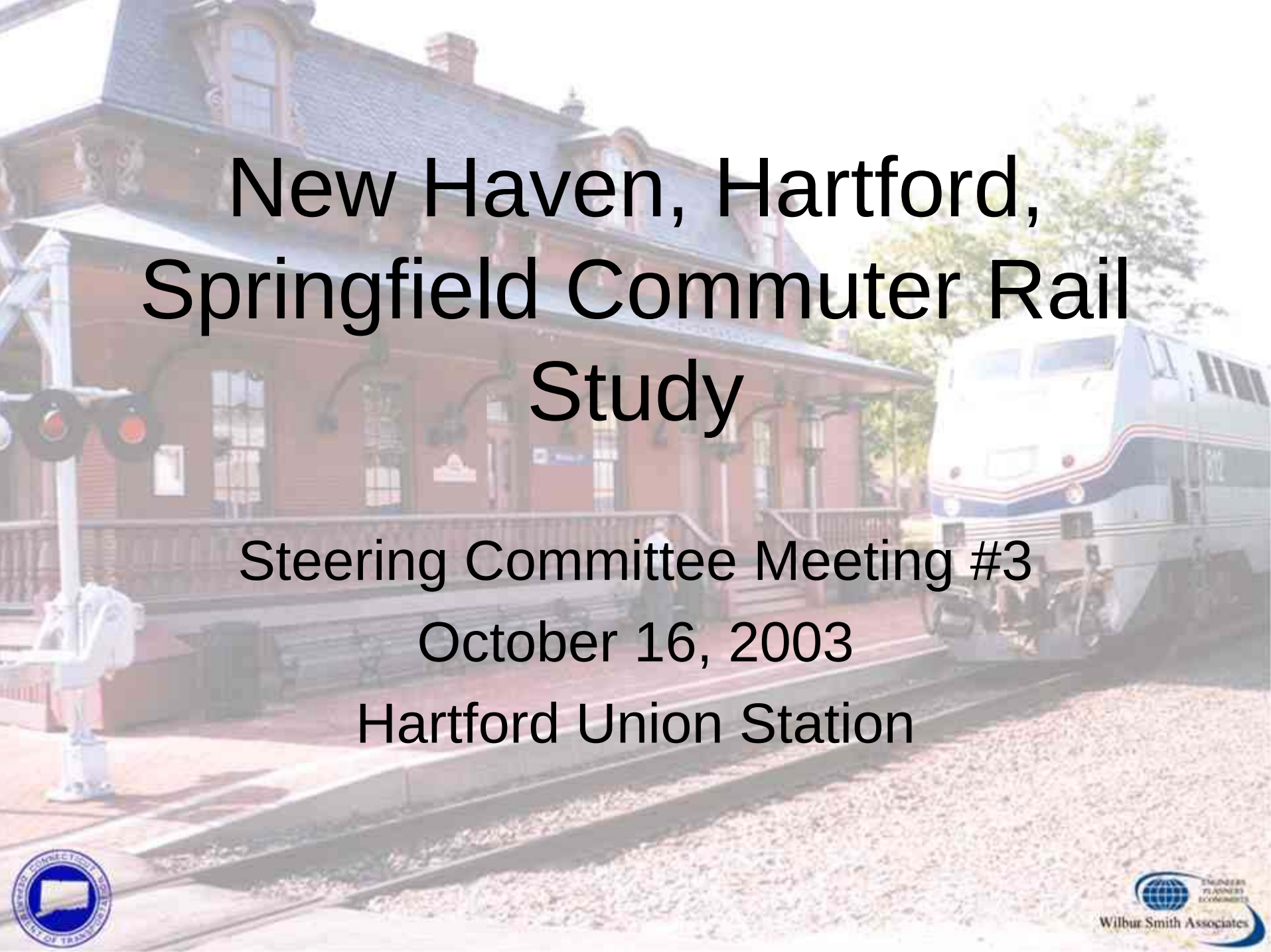

New Haven, Hartford, Springfield Commuter Rail Study

Steering Committee Meeting #3

October 16, 2003

Hartford Union Station

Wilbur Smith Associates

Agenda

- Minimum Build Results
- Maximum Build Results
- Comparison of Min and Max
- Discussion of Intermediate Alternatives

Minimum Build Alternative

- Service
- Ridership
- Revenue
- Capital cost
- Operating cost

Minimum Build Alternative

- Nine Existing Stations
  - New Haven Union Station
  - New Haven State Street
  - Wallingford
  - Meriden
  - Berlin
  - Hartford Union Station
  - Windsor
  - Windsor Locks
  - Springfield Union Station
- 30-35 minute train frequency
- No additional tracks
- Minimal additional parking

Min Build Service

- Service Objectives
  - Springfield to Hartford and return
  - Hartford to New Haven and return
  - Springfield to New Haven with Metro North Connection and return
  - New Haven to Hartford and return
  - Hartford to Springfield and return
  - AM arrivals every 30 minutes from 7:00 am to 9:00 am and PM departures from 4:00 to 6:00 pm.
- Based on March 2003 Amtrak schedules
- Requires four sets of train equipment making 12 one-way trips
- Requires high degree of schedule adherence

Min Build Ridership and Revenue

- Estimated 1,800 daily riders
- Plus approximately 600 weekday Amtrak riders (not including Vermonter)

- Similar Fare Structure to Shore Line East
- Estimated $3,400 per day revenue
  - $0.9 million annual revenues

Min Build Capital and Operating Cost

- Capital Costs = $80 million
- Including
  - 5 locomotives
  - 9 coach cars and 5 cab cars
  - Maintenance facility
  - Expanded parking at four stations (510 spaces)
    - Wallingford, Meriden, Berlin and Windsor
- Operating Costs = $7.1 million per year
- Operating Deficit = $6.2 million per year
  - 12.3% farebox recovery rate (SLE = 14%, MN-NH = 65%)
  - Subsidy of $13.80 per passenger (SLE = $18, MN-NH = $2.40)

Min Build Conclusions

- Requires very high degree of schedule adherence
- Not feasible in real world
- Refinement will require adding several second track segments

Maximum Build Alternative

- Service
- Station locations
- Connections to airport
- Ridership
- Station ridership
- Revenue
- Operating cost
- Capital cost
- Cost breakdown

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Maximum Build Alternative

- Existing stations plus additional ones in:
  - North Haven / Hamden
  - Wharton Brook Station
  - Newington
  - North Meadows
  - Bradley International Airport
  - Enfield
  - South Springfield
- 15 minute train frequency in peak
- 60 minute train frequency from 5:00 am to 11:00 pm
- Improved Stations
  - High-level platforms
  - Pedestrian amenities with grade separated crossing
  - Enclosed heated station buildings with rest rooms
  - Bicycle storage and racks
  - Substantial additional parking according to ridership
- Double track entire line

Max Build Connections to Airport

- Three alternatives:
  - Rail to north along existing spur line
    - $18 million (without design & contingency)
  - Rail to south in Rte 20 median
    - $140 million (without design & contingency)
  - Shuttle bus from Windsor Locks station
    - Minimal capital cost (< $1 million)
- Ridership similar on rail and shuttle bus
  - 389 weekday riders
- Travel time similar on shuttle bus and rail
  - 10 minutes Windsor Locks to Airport

Max Build Ridership and Revenue

- Estimated 5,000 daily riders
- Weekend service = 2,000 riders
- Includes Amtrak riders except Vermonter

- Similar Fare Structure to Shore Line East
- Estimated $13,000 per weekday revenue
  - $3.2 million annual revenues
- Estimated $3,000 per weekend day revenue
  - $326,000 annual revenues

Max Build Station Ridership

Station	AM Peak Commuter Ons	AM Peak Commuter Offs	Total Weekday Ons
New Haven Union (MN / SLE)	106	265	740
New Haven State St	4	138	173
North Haven	77	38	138
Wharton Brook / P&W	103	26	156
Wallingford	227	97	389
Meriden	146	44	239
Berlin	120	54	229
Newington	157	50	250
Hartford	115	756	1212
Meadows	55	51	124
Windsor	221	53	338
Windsor Locks	78	63	359
Enfield	120	54	210
Springfield State St	62	6	79
Springfield	129	25	347
Totals	1720	1720	4983

Max Build Capital and Operating Cost

- Capital Costs = $481 million
- Including
  - 17 locomotives and 51 coach and cab cars
  - Maintenance facility
  - Double Track entire line
  - Improved Stations
  - Rail connection to airport
- Operating Costs = $48.3 million per year
- Operating Deficit = $44.7 million per year
  - 7.5% farebox recovery rate (SLE = 14%, MN-NH = 65%)
  - Subsidy of $32.56 per passenger (SLE = $18, MN-NH = $2.40)

Max Build Capital Cost Breakdown

- Maintenance Facility $ 27 million
- Stations $ 72 million
  - Each full station = $3.5 million plus parking
    - High-level platforms = $1.1 million
    - Station buildings = $0.8 million
    - Overhead pedestrian structures = $1 million
    - Canopy = $0.6 million
- Double Track $ 97 million
- Bridges $ 53 million
- Airport Connection $ 28 million
- Train Equipment $205 million
- Total $481 million

Note: Costs include 10% design and 40% contingency

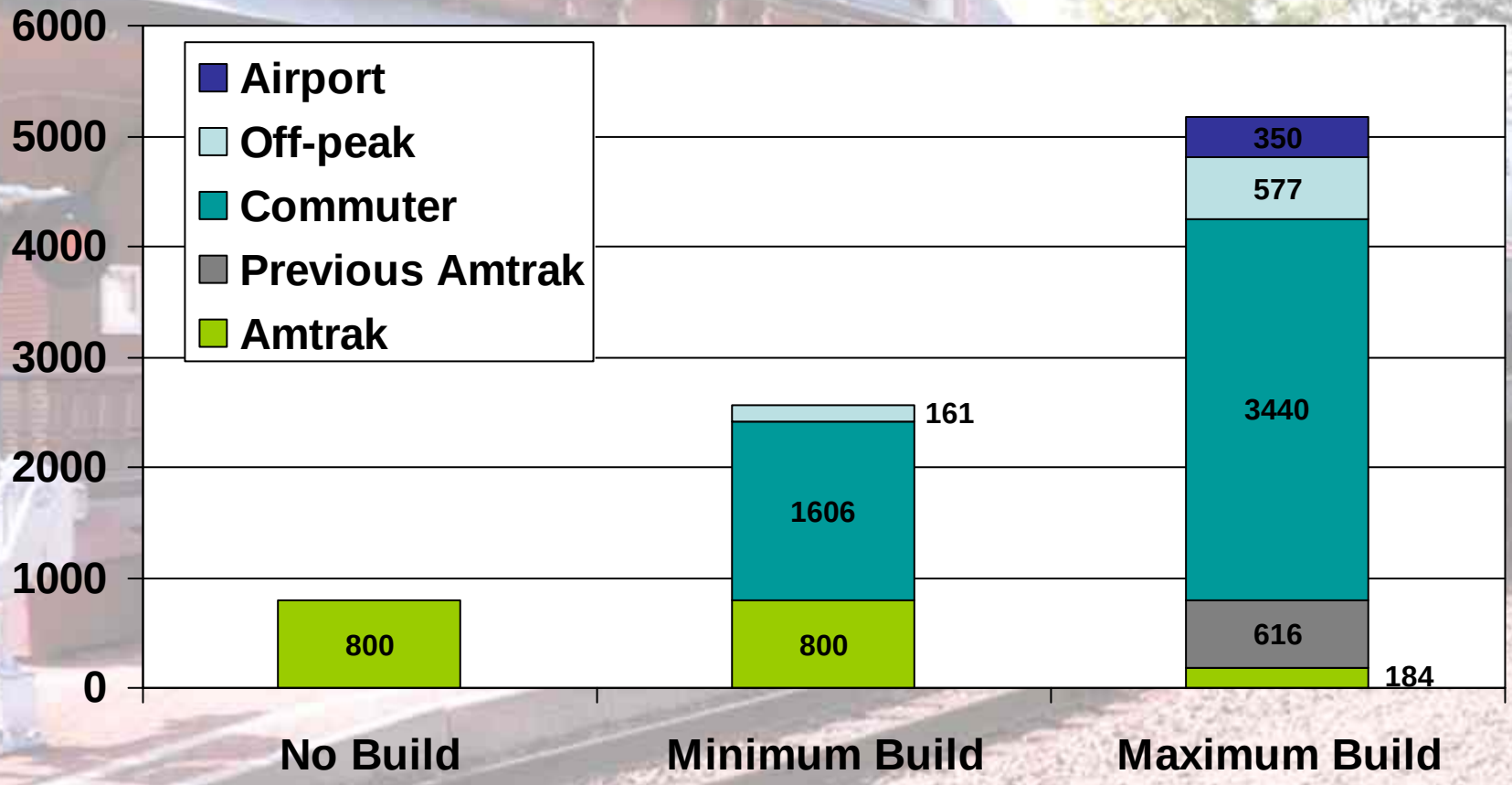
Max Build Conclusions

- Max Build has extremely high capital cost
- 15 minute headways lead to higher operating and capital cost and lower farebox recovery

Alternative Comparison

	Min Build	Max Build
Daily Ridership	1,800 weekday plus Amtrak	5,000 weekday (+2,000 weekend)
Annual Operating Cost	$7.1 million	$48.3 million
Capital Cost	$80 million	$481 million
Farebox Recovery	12.3%	7.5%

Weekday Ridership Comparison



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Station Ridership Comparison

Station	Min Build Weekday Ons	Max Build Weekday Ons
New Haven Union (MN / SLE)	267	740
New Haven State St	97	173
North Haven	-	138
Wharton Brook / P&W	-	156
Wallingford	343	389
Meriden	167	239
Berlin	155	229
Newington	-	250
Hartford	436	1212
Meadows	-	124
Windsor	99	338
Windsor Locks	62	359
Enfield	-	210
Springfield State St	-	79
Springfield	141	347
Totals	1767	4983

Capital Cost Comparison

	Min Build	Max Build
Maintenance Facility	**$17 million**	**$27 million**
Stations	**$5 million**	**$72 million**
Double Track	**-**	**$97 million**
Bridges	**-**	**$53 million**
Airport Connection	**-**	**$28 million**
Train Equipment	**$58 million**	**$205 million**
Total	**$80 million**	**$481 million**

Note: Costs include 10% design and 40% contingency

Implementation Plan Decisions

- Connection to airport
- Stations
  - Quantity and location
  - Low versus high platforms
  - Heated station buildings
  - Overhead pedestrian structures
- Double track
- Schedule
  - Peak frequency
  - Off-peak frequency

Steering Committee Feedback

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What's Next

- Minimum, Maximum and Intermediate Build Alternatives will be compiled into Alternatives Technical Memo
- Refinement of Final Alternatives in Operating Plan
- Meetings with towns to look over station plans